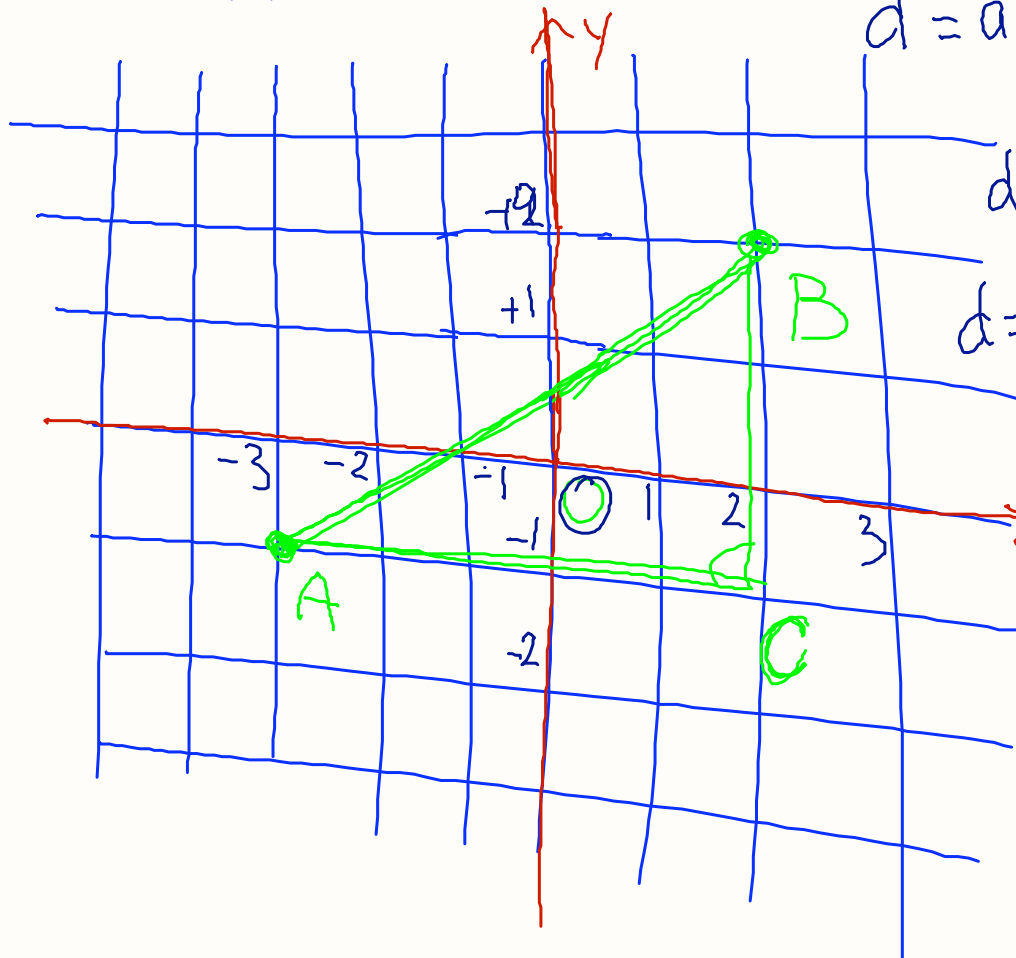


# DISTANCE FORMULA

$$d^2 = a^2 + b^2$$



$$d^2 = 5^2 + 3^2$$

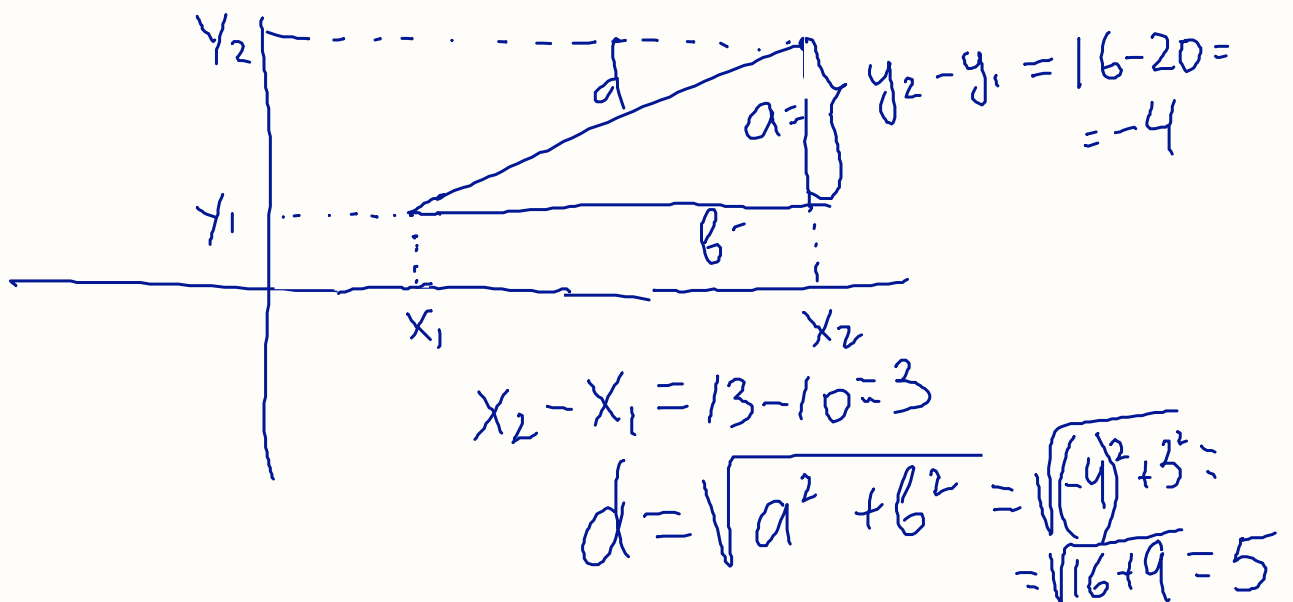
$$d = \sqrt{25 + 9} =$$

$$= \sqrt{34} = 5.83$$

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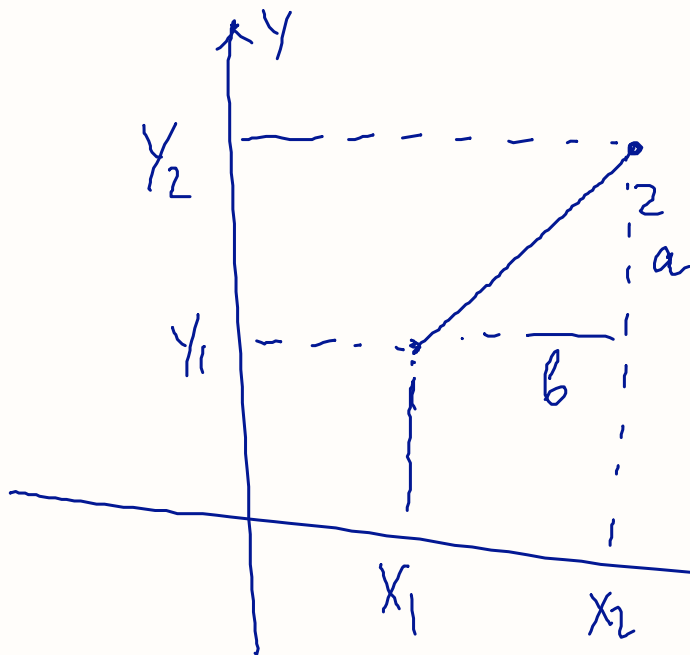
#1  $(10, 20)$   $x_1 = 10$   $y_1 = 20$

#2  $(13, 16)$   $x_2 = 13$ ,  $y_2 = 16$



②  $(15, 37)$   $(42, 73)$

$x_1 = 15$   $y_1 = 37$   $x_2 = 42$   $y_2 = 73$



$$a = y_2 - y_1 = 73 - 37 = 36$$

$$b = x_2 - x_1 = 42 - 15 = 27$$

$$d = \sqrt{a^2 + b^2}$$

$$d = \sqrt{36^2 + 27^2} =$$

$$\rightarrow \sqrt{1296 + 729} =$$

$$= 45$$

(3)

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$$x_1 = -19 \quad x_2 = -3, \quad y_1 = 16 \quad y_2 = 14$$

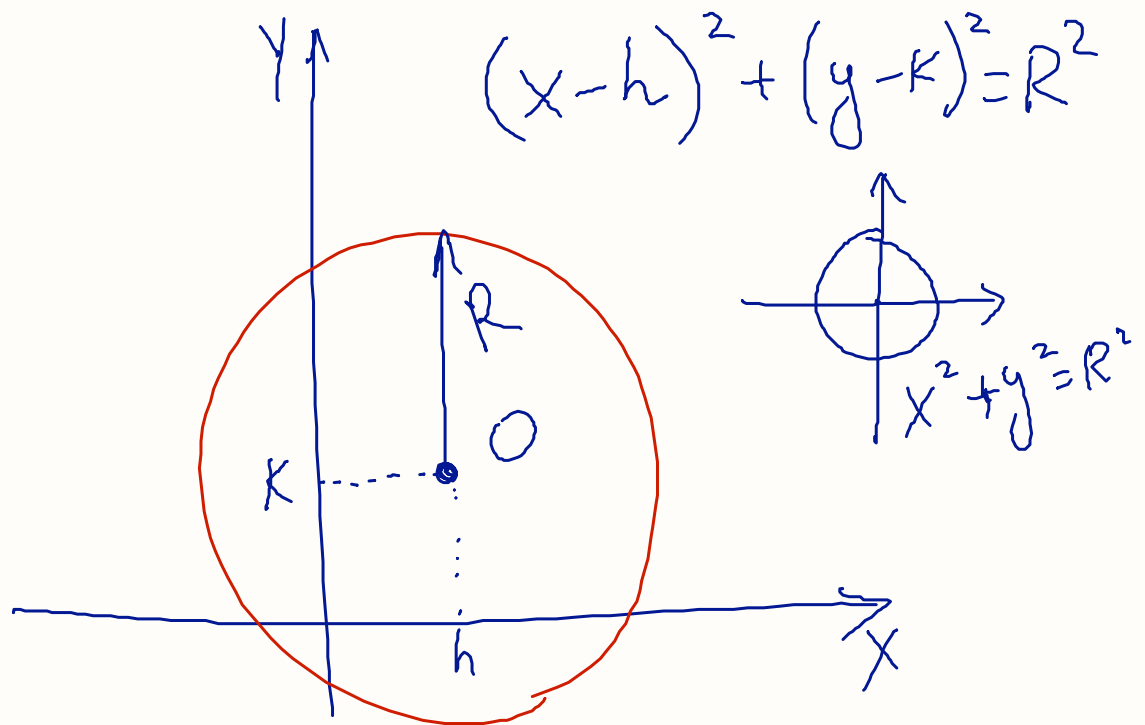
$$d = \sqrt{a^2 + b^2}$$

$$\begin{aligned} a &= x_2 - x_1 & b &= y_2 - y_1 \\ &= -3 - (-19) & &= 14 - 16 \\ &= 16 & &= -2 \end{aligned}$$

$$d = \sqrt{16^2 + (-2)^2} = 30$$

$$\sqrt{256 + 4} = \sqrt{260} = 16.12$$

## EQUATION OF A CIRCLE



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